

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-15 (Canceled).

Claim 16 (New): An automobile power unit comprising:

an engine;

a motor that transmits a dynamic force to the engine and starts the engine, and that receives a dynamic force of the engine during rotation of the engine and generates a power;

a power conversion circuit that has at least two DC voltage input/output terminals and transmits a power to the motor;

a battery that is connected to the power conversion circuit;

an energy storage source that is connected in series to the battery and stores energy; and

a DC/DC converter that is composed of at least two switching elements, that charges the energy storage source by boosting a voltage of the energy storage source, and that recovers energy in the energy storage source to the battery by lowering a voltage of the energy storage source,

wherein the switching elements of the DC/DC converter connect high-voltage-side ones of the DC voltage input/output terminals of the power conversion circuit to a high-voltage-side terminal of the battery;

wherein when the motor receives a dynamic force of the engine, generates a power, and charges the battery through the power conversion circuit and the DC/DC converter, the switching elements provided in the DC/DC converter are constantly turned on; and

- wherein after the engine has been started by the motor and before the power generation is carried out, the DC/DC converter operates the energy storage source in a voltage-lowering manner and recovers energy stored in the energy storage source to the battery.

Claim 17 (New): The automobile power unit according to claim 16, wherein the energy storage source is charged during stop, pre-stop idling, or deceleration of the vehicle.

Claim 18 (New): The automobile power unit according to claim 16, wherein each of the switching elements of the DC/DC converter is constituted by a semiconductor element.

Claim 19 (New): The automobile power unit according to claim 16, wherein each of the switching elements of the DC/DC converter is constituted by a parallel circuit composed of a semiconductor element and a mechanical switch.

Claim 20 (New): The automobile power unit according to claim 16, further comprising switches connected between the high-voltage-side terminal of the energy storage source and the high-voltage-side ones of the DC voltage input/output terminals of the power conversion circuit.

Claim 21 (New): The automobile power unit according to claim 16, wherein the energy storage source is charged from the battery via the DC/DC converter before the engine is started by the motor.

Claim 22 (New): The automobile power unit according to claim 20, wherein energy is supplied from the battery to the power conversion circuit in a first half of a time period in which the engine is started by the motor, and wherein energy is supplied from the battery and the energy storage source to the power conversion circuit in a second half of the time period.

Claim 23 (New): The automobile power unit according to claim 20, wherein the switches connected between the high-voltage-side terminal of the energy storage source and the high-voltage-side ones of the DC voltage input/output terminals of the power conversion circuit are constituted by semiconductor elements.

Claim 24 (New): The automobile power unit according to claim 16, wherein the switching element of the DC/DC converter is constituted by a mechanical switch.

Claim 25 (New): The automobile power unit according to claim 20, wherein the switches connected between the high-voltage-side terminal of the energy storage source and the high-voltage-side ones of the DC voltage input/output terminals of the power conversion circuit are constituted by mechanical switches.

Claim 26 (New): An automobile power unit comprising:

an engine;

a motor that transmits a dynamic force to the engine and starts the engine, and that receives a dynamic force of the engine during rotation of the engine and generates a power;

a power conversion circuit that has at least two DC voltage input/output terminals and transmits a power to the motor;

a battery that is connected to the power conversion circuit; and

a DC/DC converter that is composed of at least two switching elements, that supplies the power conversion circuit with a power from the battery by boosting a voltage thereof,

wherein the switching elements of the DC/DC converter connect high-voltage-side ones of the DC voltage input/output terminals of the power conversion circuit to a high-voltage-side terminal of the battery;

wherein when the motor receives a dynamic force of the engine, generates a power, and charges the battery through the power conversion circuit and the DC/DC converter, the switching elements provided in the DC/DC converter are constantly turned on; and

wherein the switching element of the DC/DC converter is constituted by a semiconductor element.